

# WIPO



SCIT/ATR/PI/2001/US

**E**

**WORLD INTELLECTUAL PROPERTY ORGANIZATION**

GENEVA

**STANDING COMMITTEE ON INFORMATION TECHNOLOGIES**

**ANNUAL TECHNICAL REPORT**

**2001**

**ON PATENT INFORMATION ACTIVITIES\***

submitted by the

**UNITED STATES OF AMERICA**

An annual series of reports on the patent information activities  
of members of the Standing Committee on Information Technologies

---

\*  
– The term “patent” covers utility models and SPCs.  
– Information related to design patent activities reported by industrial property offices issuing design patents is included in the series of documents SCIT/ATR/ID.

## **ANNUAL TECHNICAL REPORT ON PATENT INFORMATION ACTIVITIES**

submitted by the

### **UNITED STATES OF AMERICA**

#### **I. Evolution of patent activities:**

##### Changes experienced in terms of application filings and grants with respect to the previous year

In calendar year (CY) 2001, the USPTO granted 166,038 utility patents, an increase of 5.4 percent over the number of grants for CY 2000. The share of grants having foreign origin, as determined by the residence of the first-named inventor, was 47.2 percent for CY 2001, up from 46.0 percent for CY 2000. The top three patenting organizations remained unchanged for CY 2001 with International Business Machines Corporation receiving 3,411 utility patents, NEC Corporation receiving 1,953 utility patents, and Canon Kabushiki Kaisha receiving 1,877 utility patents.

There were 326,508 utility patent applications filed at the USPTO in CY 2001, a ten percent increase as compared to CY 2000. The share of applications having foreign origin, as determined by the residence of the first-named inventor, is estimated to be 45 percent, up from 44 percent for CY 2000.

##### Trends or areas experiencing rapid changes with respect to the previous year

In calendar year 2001, the following active technology areas showed large increases in utility patent activity as compared to CY 2000: 'Electricity: Conductors and Insulators' (up 76 percent), 'Optical Waveguides' (up 53 percent), 'Vehicles, Navigation, and Relative Location (Data Processing)' (up 52 percent), 'Power Plants' (up 39 percent) and 'Semiconductor Device Manufacturing: Process' (up 27%).

#### **II. Matters concerning the generation, reproduction, distribution and use of primary and secondary sources of patent information:**

##### Publishing, printing, copying (main types of publications of the office in the field of patent information, etc.)

The USPTO began weekly publication of Pre-Grant utility and plant applications on March 15, 2001 as a result of Congressional Legislation. Documents are not printed, but are made available on the Internet in a searchable form and as images in a format similar to the current patent grant document. A paper copy of the file contents can be obtained from the PTO. A total of 56,429 Pre-Grant Documents were published in 2001.

Main types of announcements of the Office in the field of patent information

A wide variety of announcements and notices are provided on a weekly basis in the Official Gazette of the USPTO. The first issue each year presents a consolidated listing of the more important notices and rule changes published in the Official Gazette since July 1, 1964. PCT information, notices of maintenance fees payable and notices of expiration of patents due to failure to pay maintenance fees are among the notices provided on a weekly basis.

Mass storage media used (paper, microforms, optical storage, etc.)

In 1998, USPTO established an Internet database with access to the full-text and images of patents from 1976 forward, consisting of two terabytes of full-page images and 120GB of searchable full-text. In 2000, USPTO acquired an additional 2 terabytes of storage and added images of all US patents from 1790 through 1975. Presently, almost four terabytes of full-page image data for all patents from 1790 to the present is stored on these devices at USPTO and accessible from the Internet, along with 200GB of patent numbers and current US classifications for all patents from 1790 through 1975, as well as searchable full-text for all patents from 1976 to the present. In addition, 4.5 terabytes of storage have been deployed for patent pre-grant data (PGPub). The PGPub storage is needed to meet legislative mandates issued in 1998, in the American Inventor Protection Act (AIPA), which requires the timely granting of patents and the early publication of applications.

Each year the USPTO produces nearly 200 Cassis optical disc masters containing a wide variety of patent and trademark information. Production includes four patent text products, two patent image products, one consolidated trademark text product, and one trademark image product. Over 76,000 discs per year are sold to the public, distributed to intellectual property offices around the world, and are made available for use at no charge in PTDLs and the USPTO search facilities. An additional 56,000 discs are distributed each year to Federal Depository Libraries directly from the Government Printing Office.

In 2001, the USPTO completed upgrading the Cassis product line from CD-ROM to DVD-ROM and from Open Text's CD Answer to their Publisher II software. Production of USAApp, facsimile images of patent application publications, began on schedule in 2001 March.

Distribution of the USAPat back file to customers on DVD-ROM is on schedule. It is estimated that it will take 436 DVD-ROMs to hold the entire backfile. The USPTO has approximately 200 customers that will receive the backfile. Distribution is being made in installment sets of 50 disks each.

Exchange data products for other IP Offices and commercial customers consisting of image data and XML files are currently being produced on a combination of IBM 3480 tape cartridges and

Digital Linear Tape (DLT). Before the end of 2002 production of 3480 tapes will be discontinued and all products will be delivered on DLT from that point forward.

#### Word processing and office automation

##### Office Action Correspondence Subsystem (OACS)

The Office Action Correspondence Subsystem (OACS) was introduced in August 1999. OACS utilizes Visual Basic command language integrated within Microsoft Office 2000 to facilitate creation of written correspondence for both domestic and international applications. Examiners now have a standardized interface to create domestic application actions, including word processing created correspondence, and standard USPTO forms with text editable data entry fields. The interface allows creation of international application correspondence, including PCT forms with text editable data entry fields. OACS is also integrated with PALM for extraction of bibliographic data into both the appropriate correspondence element and also into a separately created, local structured records management Microsoft Access database. OACS also retrieves data from BRS to automate the citation of references. Additional enhancements and performance improvements are planned.

##### PCT Operations Workflow and Electronic Review (POWER)

POWER supports the administrative pre-processing of PCT applications and related documents by the staff of PCT Operations. Another system (POIS) creates an electronic file containing images of the complete application plus machine-readable bibliographic data. POWER conducts automated formalities review of this data, prepares drafts of necessary correspondence and electronically routes the application to the next available paralegal specialist. Via the user interface screens, the paralegal specialist confirms or rejects the system's indication of errors and completes any necessary correspondence. Based on pre-programmed business rules, the system automatically routes the electronic file to the next work step. If the applicant has requested that the USPTO prepare a certified copy of the priority document, an order is forwarded to the OEMS system at the appropriate time. The workflow subsystem tracks correspondence to which a response is expected and prompts user review if the response is overdue. POWER is also responsible for synchronizing shared data to PALM. The system further supports exception processing, processing through the Office of the PCT Legal Administrator and management information reporting functions. 100% of new international applications are now being entered into the POWER system.

##### PCT Operations Imaging System (POIS)

POIS supports the PCT Operations Workflow and Electronic Review system. POIS operates across the Patent and Trademark Office Network (PTONet), and is protected by Cylink Secure Domain Units (SDU) encryption hardware. The Scanning Subsystem captures digital images of international patent application documents submitted in paper form as well as allowing manual

transcription of bibliographic data. These images are stored in an Oracle database which users may access in order to view, print, index (that is, rename) or annotate (that is, apply markings) the documents. An automated first-level security review module reviews an OCR'ed version of the contents of the application searching for terms and phrases of national security interest. Such applications are electronically referred to a Licensing and Review Subsystem (LARS-PCT) where specialists perform a more in-depth security review. Images within the POIS database are also available to the Order Entry Management System (OEMS) for preparation of certified copies of international applications. 100% of new international applications are scanned into the POIS system.

#### Tools for Electronic Application Management (TEAM)

In the area of electronic examination the Office has been working on the Tools for Electronic Application Management (TEAM) system, which is a continuation of the prototypes originally done under the PREP project. TEAM planning is currently underway to try to take advantage of advances in the Electronic Filing System (EFS) to provide electronic file wrapper and examination by 2004.

### Search Systems

Examiners have access to two search clients, both of which provide text and image search and display capabilities. One is a browser-based client called WEST (Web-based Examiner Search Tool); the other is a coded client called EAST (Examiner Automated Search Tool). WEST is designed for ease of use and rapid deployment of new functionality. EAST has a more complex interface, designed for greater user customization, more rapid retrieval of images, and greater use of the keyboard. Through these search clients, all USPTO patent examiners have access to full U.S. patent images from 1790 and full U.S. patent text search from 1971. Since the introduction of U.S. Published Applications in March 2001, the full text and images of these documents have been made available. Effective October 16, 2001, examiners have access to one segment of the U.S. Patents OCR database through the WEST search client. This segment of the U.S. Patents OCR database enables text search capability for U.S. Patents granted between 1920 and 1971. Access through the EAST search client was implemented in January 2002. Access to another segment of the U.S. Patents OCR database covering the period from 1790 to 1919 is planned for 2003. Examiners can also integrate the results of U.S. patent document searches into their office actions from their desktop workstations. Also available are the contents of the First Page DataBase (FPDB) project, IBM Technical Disclosure Bulletins, and Derwent's World Patents Index (WPI) abstracts. The FPDB consists of the English-language Patent Abstracts of Japan (PAJ) from 1976, and their associated clipped images, 5 European Patent Office (EPO) member states (EPO patent documents, France, Germany, Great Britain and Switzerland), WIPO patent documents (PCT Publications), and U.S. Patent abstracts, when chosen as the preferred family member by the EPO, from 1978. Additionally, examiners have access to full patent document images from 1920 for these same intellectual property authoring countries and organizations. The addition of full English-language text of EPO documents and full patent document images for additional intellectual property countries and organizations are planned.

(New) techniques used for the generation of patent information (printing, recording, microfilming, photocomposing, etc.).

There are no new developments to report for calendar year 2001.

### **III. Matters concerning abstracting, classifying, reclassifying and indexing of technical information contained in patent documents:**

Abstracting, reviewing, translating

#### Abstracting

The Scientific and Technical Information Center (STIC) does not abstract technical information from patent documents.

Reviewing, Translating

STIC's translators and translation contractors provide full or partial English-language versions of patent documents upon request by USPTO staff. The annual workload in FY2001 was over thirteen million written words, the majority of which are Japanese, German, and French. In addition, the translation staff reviews with examiners the general contents of patent documents and provides partial oral translations prior to or in place of written translations. Human-edited machine-assisted translations for Japanese patents issued since 1993 are being provided to examiners as a method of improving translation turnaround time and controlling costs.

Classification and reclassification activities; Classification system used, e.g., International Patent Classification (IPC), other classification (please indicate whether or not patent documents are classified by your Office and, if so, which classification is used)

In 2001, approximately 144,526 patent documents were reclassified and 1,715 new subclasses were established in 21 classes in the US Patent Classification (USPC) system. Of this total 15,860 were non-United States patent documents and approximately 128,666 were United States patent original or cross-reference classifications.

The Classification Data Systems automated classification desktop tool was deployed to additional classifiers and examiners in 2001. The system is used by classifiers and examiners to create new classification schemes and associated reference materials for the USPC, and to reclassify patent documents into the new scheme. Enhanced versions of this system are being planned that will include the ability to reclassify PGPub and non-US patent documents and will expand workflow functionality.

*Foreign Patent Classification (FPC)* - The USPTO continued to develop automated systems and processes to assist with the classification of non-US patent documents by USPC. A statistically based concordance has been developed between the USPC and EPO's ECLA classification system that derives data from US patents classified in both classification systems. Work has begun on a similar concordance between USPC and JPO's FI classification system. The USPTO continued to test linguistic tools, namely, PTO's text search engine and query-by-example (QBE) technology to further assist with the classification of the documents. Non-US patent documents that have USPC codes can be retrieved by those classifications using the Examiner electronic search systems "EAST" and "WEST".

All utility patents issued in 2001 include both a US Patent Classification designation and an International Patent Classification designation. The Automated Patent Search (APS) systems available within the PTO and at selected Patent and Trademark Depository Libraries provide the capacity for searching US Patent documents with either a US or IPC classification designation.

In 2001 the USPTO continued to maintain a concordance between the United States Patent Classification System and the International Patent Classification system.

Further information about the use of the US Patent Classification System is available at:

<http://www.uspto.gov/web/menu/pats.html>

Coordinate indexing (ICREPAT-types and/or domestic deep indexing systems, keyword indexing)

No new activities have been initiated under this topic.

Hybrid system indexing

No new activities have been initiated under this topic.

Bibliographic data and full-text processing for search purposes

Patent search capabilities provide text search of US Patents, JPO and EPO abstracts, Derwent's World Patent Index Database and IBM's Technical Disclosure Bulletins. As of March 15, 2001, the system also provides full-text search capability for the newly established 18-month publication of US Patent Applications (PGPub). Since October 2001, the system has provided access to the OCR text of US Patents issued between 1920 and 1971. All these documents have corresponding images available for review by examiners. Examiners relevant documents by text searching the "dirty" OCR file, but will use the document images to determine applicability to applications under review. Because of the difference in quality between this file, and the other full text files, they are not searchable together.

**IV. Search file establishment and upkeep:**

File building

The Examiners' Search File is continually updated to ensure that the file is complete and current. The US patent documents granted each week are processed and added to the Search File. In 2001, an average of 3,324 US patent documents issued each week and an average of 12,735 original and cross-reference documents were added to the Search File each week.

OCR File

The USPTO has used OCR software to convert images of approximately 166,000 US patents issued between 1970 and 1976 missing from the current text file. It has also converted the US Patent backfile from 1970 to 1790, which is approximately 3.9 million additional documents. Work has been completed to load the converted text into the USPTO search engine, BRS/Search, for access via the search clients EAST and WEST. The load of the U.S. Patent OCR database is being implemented in two segments. One segment covers the time period 1790 to 1919, while the other segment covers the time period 1920 to 1971. Initial deployment of the OCR database was in WEST, covering data from 1920 to 1970, in October 2001. Access through the EAST search



client was implemented in January 2002. Providing access to the segment for the time period 1790 to 1919 is being planned in conjunction with the implementation of new system architecture in 2003.

### NPL

USPTO examiners have desktop access to over 6,000 journals in electronic format as well as several thousand electronic books. Such services as the IEEE/IEE Xplore and the ACM Digital Library are also widely used by examiners in the electrical arts.

### Non-US Patents

All JPO and EPO patent full images through 2000, which are associated with the first page database, have been loaded to storage devices and are available to examiners.

### Updating

The Electronic Search File is continually updated to ensure that the file is complete and current. The US patent documents granted each week are processed and added to the database, along with associated classification information. In 2001, an average of 3,324 US patent documents issued each week and an average of 12,735 original and cross-reference codes associated with these documents were added to the database each week.

During 2001, the *Index to the US Patent Classification* system was expanded to include several hundred new terms relating to US classes and subclasses for business method technologies.

### Storage, including mass storage media and microforms

In FY 1997 and FY 1998, the USPTO installed 42 terabytes of Redundant Arrays of Independent Disk (RAID) magnetic disk storage systems to process patent, trademark, and other business data electronically. In FY 1999 through FY 2001 additional capacity was acquired that doubled the amount of online magnetic storage available. The USPTO is continuing its partnership with EMC Corporation for server attached and Storage Area Network (SAN) storage devices. With a long-term lease agreement, the USPTO will acquire the use of 225 TB of raw disk capacity by FY 2004. Managing this storage will require not only continued vendor support, but also integration with the Enterprise Management System (EMS).

### Documentation from other offices maintained and/or considered part of the available search file

The United States Patent and Trademark Office receives, by means of exchange agreements, the patent documents of most countries of the World. Most of the patent documents received by the STIC are now in the form of CD-ROMs, which remain the primary exchange medium. The CDs produced by PCT member countries are available on the PTO network through examiner search

tools, EAST and WEST. STIC staff is making increasing use of the Internet sites created and maintained by national patent offices and multinational patent organizations.

The USPTO has undertaken an effort to assign USPC classifications to foreign patent documents, thereby facilitating electronic retrieval of the full document facsimile images through classified search techniques. A preferred foreign patent document from each patent family will be identified for inclusion in the foreign patent electronic database for retrieval using USPTO search tools. This effort includes: the development of concordances to the EPO's ECLA and JPO's Facet Index (FI) and F-term classification systems via statistical techniques, the use of computational linguistics for assignment of USPC classifications, and examiner refinement of the applied USPC classifications. A pilot of the foreign patent classification effort for non-Japanese foreign patents was initiated in August 2000. Efforts to extend the above techniques to Japanese foreign patents are currently underway. The initial phase of this project added the capability to search foreign patents by USPC to the examiner search tools, and loaded over five million foreign patent USPC legacy records. Subsequent phases currently being planned involve the use of patent family information to eliminate the retrieval of duplicates when searching multiple electronic patent databases, and automated language translation capability.

USPTO's Data Maintenance operation and staff is responsible for all text and image data load processes and maintenance of both domestic and foreign patent data. The staff performs the data loading and maintenance of both text and image data for the following foreign databases: Global Patent First Page Information Data Load, ScienceServer Elsevier Data Load, Foreign Image Data Load (EPO/JPO Full Image Data, DOCDB, ECLA, JPO F-Term/Guidance Table, JPO F-Term Manual).

## **V. Activities in the field of computerized and other mechanized search systems:**

### In-house systems (on-line/off-line)

The USPTO continues to add new data sources to its search systems. Agreements are being negotiated with EPO for their full text database, as well as other countries, but budget issues may delay making the data available to examiners.

The USPTO has continued the development and deployment of patent and trademark search systems as reported in previous years. The USPTO's automation program is described in the Strategic Information Technology Plan, which is updated annually.

As described in previous reports, the on-line text search system is used by examiners, classifiers, and the public. Since the 1995 report, USPTO researched alternative systems and has prototyped several products -- Verity's TOPIC, Personal Library Software (PLS), Dataware's BRS Search and OpenText -- the USPTO expects improvements over the current system. BRS was selected as the replacement system for the current CAS owned Messenger search system. It was installed in October 1999.

### Patent Document Image Retrieval System

Examiners have access to the text and images of US, JPO, and EPO patents, Derwent abstracts, US published applications and IBM technical disclosure bulletins through a browser-based client called WEST and a coded client called EAST. WEST is designed for ease of use, and rapid deployment of new functionality. EAST has a more complex interface, designed for greater user customization, more rapid retrieval of images, and greater use of the keyboard. WEST was deployed in May, and EAST was deployed in August of 1999.

EAST was upgraded several times in FY 2000 to provide rapid improvements and increased functionality in order to ease the transition of examiners from the legacy Messenger-based tools. In FY 2001, PGPub data was deployed. Future enhancements to EAST will be to deploy all OCR data back to 1790 in FY 2003. EAST will also provide increased access to foreign patent images. Continuing system performance upgrades are also planned for future releases of EAST.

In June 2000, WEST 2.0 was deployed; offering foreign patent searching by USPC, patent classification searching in Manual of Classification order, customizable display formats and a host of other enhancements. Future planned enhancements include: deployment of OCR back file to 1790, support to browsers other than Netscape, and IPC search capability.

In October 2000, the patent database on the Web was expanded to include additional U.S. patent image data back to 1790 and other ancillary documents. The patent image data can be accessed by a class/subclass search or by patent number. In FY 2001, the Internet began electronically publishing for Pre-Grant Publication (PGPub) patent applications. Biosequence repository data will be available in FY 2002. In FY 2003, assignment data will be added to the website. Beginning in FY 2004 and completing in FY 2008, perfection of backfile data will be accomplished and placed on the web.

Approximately 75% of the examiners use EAST, with the remainder using WEST.

### Biotechnology Sequence Search System

In 1990, the USPTO began requiring patent applicants who file applications that disclose protein and DNA sequence information to include a submission of the sequence information in computer readable format (CRF) (37 CFR §§ 1.821-1.825). The sequence submission requirement not only facilitates the examination of biotechnology-related patent applications, but also allows the USPTO to compile a database of sequence information contained in US patents. Under the rules, the patent applicant performs data entry of sequence information. The USPTO's Scientific and Technical Information Center (STIC) receives and evaluates each sequence submission to assess compliance with the technical requirements for format and validity, as well as compliance with the sequence submission rules. Once STIC verifies the submission, staff convert the data into a format compatible with the internal USPTO search system, and load the data into the pending

sequence database. This sequence information, after processing, can then be used by examiners and STIC staff for searching and analysis. The USPTO also retains a copy of the original submission for inclusion in the permanent record of each patent application file, and for use in publication of the patent application upon grant.

The USPTO relies heavily on nucleic acid (e.g. DNA, RNA) and amino acid (e.g., protein) sequence information supplied in biotechnology patent applications to search nucleic and amino acid databases for relevant prior art and other information. This information is used to assess whether the claimed invention complies with the statutory requirements of utility, novelty, non-obviousness, and to provide an enabling disclosure of the technology behind the invention. USPTO keeps pace with the rapid expansion in sequence information filings by continuing to enhance its Automated Biotechnology Sequence Search (ABSS) system for searching nucleic and amino acid sequences submitted as part of these applications. The ABSS system is based in-house on a network of Sun Microsystems hardware and many Compugen Bio XL/P or Bio XL/H boxes, which utilize the Smith-Waterman algorithm. The ABSS systems perform sequence searches on various databases including: EMBL, GenBank, Genseq, Swiss-Prot, and PIR.

More than 20 users, including Technology Center 1600 biotechnology examiners and STIC searching staff, can access this system 24 hours per day, seven days per week. During the first six months of FY2002 (October 2001-March 2002), over 4,900 sequence searches were conducted, and 9,611 sequence listings were received for processing.

#### External databases

USPTO patent examiners and trademark attorneys have access to over 1,000 commercially available databases including those provided by STN (Chemical Abstracts Services and two international organizations), Questel/Orbit, DIALOG, and LEXIS/NEXIS. The content of the Derwent World Patent Index file has been brought in-house and is available via WEST and EAST. Patent examiners in the biotechnology field also have access to the commercial sequence databases (for protein and nucleic acid sequence).

Administrative management systems (e.g., register, legal status, statistics, administrative support, etc.)

#### Patents Location and Monitoring System (PALM) Migration

USPTO continued the phased subsystem delivery with successful delivery of the first subsystem (Infrastructure) in October 1998. The second subsystem (File Ordering) was delivered in October 1999. The third subsystem (Pre-examination system) was delivered in February 2000. The PALM project schedule has been impacted by implementation of the American Inventors Protection Act. All PALM related systems went through a major upgrade to support Legislation for the Pre Grant Publication of Application (PG Pub). This release was deployed throughout the PTO on 29 November 2000. Exam Post-Exam (EXPO) is the project name for the final

migration of the PALM system from the A-16 computer. EXPO encompasses the functionality of Examination, Post Examination and Patent Term Adjustment and was deployed in the Fall 2001.

#### PALM on PTONet

All Patent Examiners have been provided further access to the current Management Information System on their desktop PC via barcode readers and a web browser interface. This system has been found to provide increased case tracking accuracy.

#### Equipment used (hardware, including the types of terminal and network used, and software), carriers used

PTONet has an architecture consisting of a campus-wide Gigabit Ethernet switched backbone with closet switches providing switched Ethernet connection to individual workstations. Currently, PTONet users have dedicated 100 Mbps switched Ethernet connections.

#### PTONet

Since desktop applications require increasingly more network bandwidth (through the backbone server attachments) PTONet has been upgraded to keep ahead of the requirements. Prior to the most recent network upgrade, PTONet users had access to a 10 Mbps Ethernet segment. Currently, PTONet users have dedicated 100 Mbps connections; industry analysis indicates this will be more than sufficient for any forecast client application.

PTONet provides examiners and other staff with access to the Internet through dual-redundant firewalls. Access zones implemented via firewalls and proxy servers have been implemented to provide a limited amount of controlled access to PTONet resources for external users. Additional external access capabilities are being developed through the implementation of a variety of access control mechanisms including digital certificate-based authentication supported by a full Public Key Infrastructure (PKI).

#### Access to external databases

External databases are primarily accessed using software such as STN Express or DialogLink loaded on PTONet. Examiners also use secure communications and servers to search these services via the Internet. During 2002, VPNs were set up for communication with STN and Dialog, allowing for fast, secure searching. Examiners establish connections to the external databases through sessions that are set up after logging into the PTO firewall. PTO's Internet access line bandwidth was increased from T1 to fractional T3 (>20 Mbps).

#### Existing online thesauri; their structure, presentation and usefulness for computerized searches

Both of the Search Systems, EAST and WEST, have the Assignee Thesaurus and a general technical thesaurus from the US Defense Technical Information Center (DTIC).

**VI. Administration of the industrial property office library and services available to the public (relating to facilities, e.g., for lodging applications, for assisting clients on searching procedures, for obtaining official publications and registry extracts):**

Planning, administration, automation, security, buildings

Planning and Administration

The Scientific and Technical Information Center (STIC) is organizationally part of the USPTO's Search and Information Resources Administration. Although providing a number of services to the public, STIC's primary mission is to serve the examining and professional staff of the USPTO. STIC is composed of three divisions – the Centralized Services Division, the Electronic Information Center Division, and the Biotechnology/Chemical Division.

The Electronic Information Center Division is responsible for the provision of examination support services through satellite information facilities located in six Technology Centers. These decentralized facilities, called Electronic Information Centers, serve as focal points for information services. The staff provides prior art and document delivery services and transmits requests for other services (e.g. translation, interlibrary loan) to the appropriate STIC unit for action. The Lutrelle F. Parker, Sr. Memorial Law Library provides access to legal information for examiners and other USPTO staff. The law library is located in a joint facility with one of the EICs.

The Biotechnology/Chemical Division serves the growing information needs of Technology Center 1600. The division and its associated library are STIC's first and currently the largest effort to provide onsite information services to a technology center. The division provides biotechnology and chemical online search services for examiners only and reference services for the examiners and the public. The staff manages the processing of computer readable form submissions for patent applications containing nucleotide and amino acid gene sequences and they are also the primary users of the in-house genetic sequence search system. The Translations Branch, which provides examiners with both oral and written English-language translations of foreign patent documents and technical articles, is also part of the Division.

The Centralized Services Division is responsible for assisting examiners and the general public in the use of USPTO's extensive collection of foreign patents as well as the scientific literature collections of the information center's main branch. Access to prior art is provided through the use of in-house and commercial databases and Internet services, as well as printed and microform tools for older materials. The staff provides reference services to examiners and maintains self-service facilities for the public, patent examiners, and other USPTO professional staff. The division also provides copies of foreign patent documents to the public for a fee. The staff maintains USPTO's collection of foreign patent documents. The Centralized Services Division is also composed of the Reference Delivery branch, which provides articles, books, and documents

to examiners on request and the Information Access and Management Branch, which acquires, catalogs, and provides access to print and electronic tools for examiners.

### Automation

STIC utilizes an automated library system accessible to examiners at the desktop and to other users in STIC facilities. The catalog includes the post-1977 non-patent literature collection and the most active portion of the pre-1977 collection. The catalog allows searchers to hyperlink to electronic journals and books in the STIC collections.

STIC develops and maintains intranet pages describing services and print and electronic resources useful to examiners in various technology centers and art units. A Web page for each technology center presents links to databases, books and journals, reference tools, and Web resources useful to examiners covering those arts. Specialized pages have also been developed in emerging areas of patent interest including business methods and nanotechnology.

### Security, Buildings

The main STIC collection is housed in commercially owned buildings along with other USPTO offices and remains locked during non-business hours. The property owners provide guards to control access to the buildings during non-business hours. Roving guards are provided during regular business hours. STIC takes various security measures to ensure the integrity of the STIC collection, including issuing USPTO security passes to all STIC employees and utilization of a book detection system. STIC facilities located in technology centers are accessible to examiners 7 days a week, 24 hours a day.

### Collecting, acquisitions, preparation

STIC has the mission of identifying, acquiring and maintaining non-patent literature (NPL) in electronic and print formats, devoting special emphasis to literature for new and emerging technologies. The NPL resources acquired focus on the applied science and technology fields, with special emphasis on creating special collections or systems for rapidly developing technologies, e.g. computer software, business methods, and biotechnology. Staff also identify, evaluate and monitor expenditures for online commercial databases. In addition, STIC manages a support contract for the USPTO, which covers library services, facilities management, and information management functions.

The Foreign Documents Division processes and distributes all foreign patent documents and journals received at the USPTO. The majority of foreign documents are now received in CD-ROM format .

### Collection management, preservation

The collections consist of over 150,000 monograph and serial titles, and millions of foreign patent documents. Those portions of the collection maintained in Main STIC and the Chemical-Biotechnology Library are open to the public. In accordance with the Patent Cooperation Treaty (PCT), STIC meets minimum documentation requirements for foreign patent documents and non-patent literature and makes these documents available to the public.

### Interlibrary lending, resource sharing, networks of patent libraries in the country

#### Interlibrary Loans

STIC's Reference Fulfillment Branch was established to expeditiously provide the Examining Corps with non-patent literature references. After an examiner requests a non-patent literature reference, the Branch locates the reference and requests document delivery from a vendor/supplier. This work is increasingly accomplished electronically via fax, Internet, Ariel, CARL/Uncover, and other services. The staff uses OCLC (a national on-line shared cataloging and interlibrary loan system) and CUADRA Star as location tools and Dialog and STN for citation verification. The STIC participates in the National Commission on New Technological Uses of Copyrighted Works (CONTU). In observance of CONTU requirements, all requests are tracked for the number of occurrences from a journal on the Star system. If a minimum of five articles are requested from a journal not owned by STIC, either a subscription of the journal is purchased or copyright fees are paid to the Copyright Clearinghouse Center (CCC) through the lending library.

#### Reference and Copy Services

STIC provides reference assistance to examiners in the main facility, the Electronic Information Centers, the Chemical-Biotechnology Library, and the Parker Law Library during regular business hours. Reference service for examiners includes assistance with technical and reference materials, commercial online databases searches, document delivery, and sequence searches on STIC's internal automated biotechnology search system. With appropriate USPTO user passes, the public may gain access to the main facility and the Chemical-Biotechnology Library and use the collections (on-site), public copiers, and microfilm readers.

STIC's foreign patent staff provides assistance on the foreign patent collection to USPTO staff and to the public. Computer searches on commercially available databases such as Questel/Orbit and INPADOC are provided for USPTO staff only. As part of the public services available, the foreign patent staff will help the public locate foreign patent information by providing advice regarding searching, databases, and collections. Public users can make their own copies of foreign documents, or remotely, can request copies of foreign patents from the extensive STIC collections. The copy services are available both directly from the USPTO and as a component of the special service mix at Patent Depository Regional Libraries.



### Resource Sharing

STIC, a participant of the OCLC shared cataloging and interlibrary loan system, is a non-supplier for interlibrary loans. STIC is also participating with research networks via the Internet to complement the existing shared cataloging and interlibrary loan system.

### Network of Patent and Trademark Depository Libraries (PTDLs)

The USPTO's Patent and Trademark Depository Library Program (PTDLP) consists of 87 academic, public, state and special libraries, referred to as PTDLs, located in all 50 states, the District of Columbia, and Puerto Rico. Two of these libraries offer additional fee-based services and are referred to as Partnership PTDLs. The PTDL Partnership at Rice University in Houston, Texas closed at the end of 2001. Plans are currently underway for a new partnership location. A list of PTDLs may be viewed at the USPTO's Internet Web site or in each issue of the Official Gazette.

The 24<sup>th</sup> Annual PTDL Training Seminar held in Arlington, Virginia from March 18-23, 2001 hosted 96 registrants. Eighty-nine librarians representing 77 PTDLs and representatives from the following organizations were represented: The State Intellectual Property Office of the People's Republic of China, Canadian Intellectual Property Office, Miami (Ohio) University, George Washington University and Catholic University of America.

The PTDL Program was involved in a number of outreach activities during 2001. It sponsored and staffed exhibit booths at the American Library Association Midwinter Conference in Washington, DC; ALA Annual American Library Association Conference in San Francisco, California; The Special Libraries Association Annual Conference in San Antonio Texas; and PTO Community Days in Arlington, Virginia. Public seminars and staff training were also conducted at a number of PTDLs throughout the year, including 13 Patents Customer Outreach seminars conducted by experts at the USPTO. Finally, numerous briefings on the PTDL Program were provided to international visitors and to various USPTO Technology Centers.

Information on the Patent and Trademark Depository Library (PTDL) Program is available from the PTDLP Web site located at: <http://www.uspto.gov/go/ptdl> . The Web site includes information about the Program's mission, history, background, services, and core collections, as well as links to the Program's publications, materials, and reference tools. Each of the 87 PTDLs is linked from the PTDL List available from the Web site.

### Automated Information in Patent and Trademark Depository Libraries

Web-based online searching for the patent text and image database is available at the 27 PTDLs participating in the WEST pilot project. Fees have been suspended for the duration of the pilot.

The USPTO continues to provide a number of optical disc products to PTDLs for direct public use. This includes all Cassis optical disc products; Patents BIB, Patents CLASS, Patents ASSIST, Patents & Trademarks ASSIGN, Trademarks BIB, Trademarks ASSIST, USAPat, USAApp, and USAMark.

Partnership PTDLs in Sunnyvale, California and Detroit, Michigan offer fee-based access to selected USPTO's in-house automated systems. These systems include WEST, EAST, FPAS and X-Search. Other PTDL Partnership services include electronic ordering of US and foreign patent documents, on-site and videoconference practitioner and public seminars, local filing of Disclosure Documents, and a secure videoconferencing capability between patent examiners and inventors and/or attorneys.

#### Automated Information in Patent Public Search Facilities

In 2001, public access continued to be offered via the Universal Public Workstation (UPWS), a secured access providing a single platform and consistent interface to all databases. The patent examiner search systems EAST and WEST, and the self-service document image print WALK-UP Print continued to be provided on UPWS. In addition, the DVD-ROM Cassis titles were moved to this platform in September 2001. In November 2001, the following additional databases migrated to UPWS: Patent Application Locator (PatAppLoc), Patent Maintenance Fees (PatFees), and Paper Classified File Locator (PatPapLoc). EAST is increasingly preferred by public, ten to one over WEST. Both systems permit access to all US patent images and word searching of text contained in US patents granted since 1971. They also provide text searching of English language patent abstracts from the European Patent Office and Japan Patent Office. Public access to these search systems continued to grow throughout 2001. Use increased from 6,736 hours in January 2001 to 8,970 hours in January 2002. An average of 687 unique customers used the systems monthly, with a high of 728 users in March 2001. There were an average of 10,749 sessions monthly. This averages 488 patent sessions per day in the patent search facilities.

The number of workstations has increased significantly in the Patent Search Room, from 6 in 1999, to 64 by November 2001. In addition there are 23 UPWS workstations in a special ergonomic Patent Search and Image Retrieval Facility. Two were just added to the Patent Assignment Search Room in November 2001 for a total of 89 UPWS workstations for patent searching. Session fees are suspended to encourage electronic searching; however, print fees are collected at the UPWS workstations via on-line accounts. With the increased number of workstations and availability from 8 AM to 8 PM Monday through Friday, there are no wait lines at this time.

An 8-hour training course for novice or first time patent users is available to the public on the WEST system. A 4-hour course for advanced users is available on the EAST system. Courses are scheduled once a month for a nominal fee, or more often as needed. Special one-page guides and Helpful Hints are available in the on-line search areas. Individual assistance is always available from staff.

The Re-examination file system REPS was introduced into the Patent Search Room in February 2000. Re-exam files may be browsed and images printed via a stand-alone REPS workstation and printer. 285,000 pages from 318 files were printed in 2001. As CD-ROM titles have migrated to wider access of UPWS, the number of workstations accessing the public CD-ROM Local Area Network in the Patent Search Room and Patent Assignment Search Room have been reduced to 3. These provide access to all USPTO's archival CD-ROM image retrieval products USAPAT, USAMARK, and Assignments. Access and printing from the CD-ROM LAN is free.

#### Automated Products Provided to the Public

The USPTO's Information Dissemination Services continues to provide patent information products and services to the public in a variety of formats. The *Products and Services Catalog*, produced biennially, describes USPTO products and services, and contains details on how to obtain them. The *Catalog* is also available for viewing on the USPTO Web Site.

The following DVD-ROM products are available for purchase by the public:

#### *Patents BIB: Selected Bibliographic Information from US Patents Issued 1969 to Present*

This Cassis DVD-ROM contains bibliographic information for utility patents issued from 1969 to the present, and for other types of patent documents issued from 1977 to the present. It includes date of issue, state/country of first listed inventor's residence, assignee at time of issue, status (i.e., withdrawn, corrected, expired for failure to pay maintenance fees, reexamined or term extended), current classifications, patent title, and patent abstracts (for the most recent 2½-year period, as disc space allows). Patents BIB also refers to patent image locations on USAPat, described below. This DVD-ROM product is updated every two months.

#### *Patents CLASS: Current Classifications of US Patents Issued 1790 to Present*

This Cassis DVD-ROM contains current classification information for all utility, design, plant, reissue and X-numbered patents, as well as defensive publications and statutory invention registrations issued from 1790 to the present (over 6 million documents). Indexing of classification information has been optimized for rapid retrieval. This DVD-ROM product is updated every two months.

#### *Patents and Trademarks ASSIGN: US Patents and Trademarks Assignments Recorded at the USPTO 1980 August to Present*

This Cassis DVD-ROM includes data derived from assignment deeds for issued patents and registered trademarks, which were recorded at the Patent and Trademark Office after August 1980 for patents, and since 1955 for trademarks. The disc includes assignments recorded before and after the patent issued. This DVD-ROM product is updated every three months. This

product is the combination of two previous titles, Patents ASSIGN and Trademarks ASSIGN, now no longer published.

*Patents ASSIST: Full Text of Patent Search Tools*

This Cassis DVD-ROM is a compilation of many patent search tools including the following: Manual of Classification, Index to the US Patent Classification, Manual of Patent Examining Procedure, IPC - USPC Concordance, and Attorneys and Agents Registered to Practice Before the US Patent and Trademark Office. In addition, Classification Definitions, a Patentee-Assignee Index, and a Classification Orders Index are included. The Patentee-Assignee Index shows ownership at time of issue for utility patents 1969 to present; for other patent types 1977 to present; and inventor names 1975 to present. The Classification Orders Index is a list of classifications abolished and established since 1976 with corresponding Classification Order number and effective date. This DVD-ROM product is updated every three months.

*Manual of Patent Examining Procedure (MPEP)*

This Manual is published to provide US Patent and Trademark Office patent examiners, applicants, attorneys, agents, and representatives of applicants with a reference work on the practices and procedures relative to the prosecution of patent applications before the Patent and Trademark Office. The MPEP is available in electronic form as an ASCII text file downloadable (no charge) from the USPTO Web site on the Internet at <http://www.uspto.gov/>, and as a searchable text file on the Patents ASSIST DVD-ROM product which includes many other useful files. Each revision is fully incorporated into the base edition and republished as a whole.

*USAPat: Facsimile Images of United States Patents*

This Cassis DVD-ROM product contains facsimile images of US patents. An “image” is an actual page of the patent, including all drawings, and looks just like the original printed document. The purpose of USAPat is to serve as a document delivery system, not as a search system. Retrieval is by document number only from a cumulative index. Excellent printed copies of actual documents can be obtained directly from a laser printer. Over 150 discs are published each year (three to four discs per week). Delivery of weekly discs is usually within 15 days from issue date.

*Trademarks BIB : Bibliographic Information from Abandoned, Canceled, Expired, Pending, and Registered US Marks*

This Cassis DVD-ROM contains the text of all abandoned, canceled, expired, pending, and registered trademarks from 1884 to present with 30 searchable fields. This DVD-ROM product is updated every two months. This product is the combination of two previous titles, Trademarks PENDING and Trademarks REGISTERED, now no longer published, with the addition of abandoned, canceled, and expired marks.

*Trademarks ASSIST: Full Text of Trademark Search Tools*

This Cassis DVD-ROM includes the searchable text of the Trademark Manual of Examining Procedure, the Goods and Services Manual, the Trademark Trial and Appeal Board Manual of Procedure, the Trademark Statute and Rules (Trademark Act of 1946 and the Rules of Practice), the Trademark Telephone Index, and the PTO Products and Services Catalog. It is updated on an irregular basis.

*USAMark: Facsimile Images of United States Trademark Registrations*

This Cassis CD-ROM contains facsimile images of U.S. registered trademarks from 1870 to the present. An "image" is an actual page of the trademark, including renewals and modifications, and looks just like the original printed document. *USAMark* is a document delivery system, not a search system. Retrieval is by document number only from a cumulative index that covers all issued discs. Excellent printed copies of actual documents can be obtained directly from a laser printer. USAMark consists of 153 discs including registrations through 2002 April. USAMark is published monthly.

The USPTO maintains World Wide Web (WWW) and File Transfer Protocol (ftp) sites on the Internet, which permit the public free access to selected information related to patents and trademarks.

The USPTO Web site at <http://www.uspto.gov/> contains information about the office and information about patents and trademarks. It also provides access to searchable databases of patent and trademark information, and to tools that assist users in obtaining information.

In September 1999, the USPTO deployed a system that allows patent applicants and/or their designated representative(s) secure restricted Internet access to patent application status and prosecution history data for their pending patent applications. The Patent Application Information Retrieval system also provides public access to this information for granted patents. The mechanisms implemented to support secure access include the deployment of a Public Key Infrastructure (PKI). The PKI will provide the means to use digital certificates to accomplish strong authentication of individuals accessing the PAIR application. PAIR was initially made available to a limited number of users in July 1999 during a pilot period. The feedback and lessons learned from the pilot resulted in a number of enhancements to the PAIR software, Infrastructure, and the Registration process supporting the issuance of digital certificates. PAIR is accessible from the Patents Electronic Business Center link from the USPTO web site.

In August 1998, the USPTO began providing free access to a searchable trademark database. It consists of bibliographic data and full-text of over one million registered trademarks and pending applications which date back to 1870. Currently, the text portion of the database is updated on a two-month cycle, and images are updated weekly.

A new version of the trademark searchable database was recently added. It includes enhanced searching capabilities and is updated on the same schedule as the searchable database used internally by the Trademark Examiners.

In October 1998, the USPTO began accepting Trademark applications electronically from a web-based application. The USPTO currently receives approximately 15% of all Trademark applications from this site. A similar pilot project for Patents is currently underway.

Patent and Trademark application status information are both available from the USPTO website. Both of these databases are searchable and are updated on a daily basis.

In November 1995, the USPTO began providing access to patent bibliographic information and abstract text on its Web Site. The PatBib database contains the data back to January 1976, and is updated on a weekly basis, usually on issue day (each Tuesday). The raw data is available for FTP downloading on the same day. In November 1998, the USPTO began providing access to the searchable, full text of US patent from January 1976 to the present. The database is updated weekly, usually on issue day.

## **VII. Matters concerning mutual exchange of patent documentation and information:**

### International or regional cooperation in the exchange of machine-readable information, e.g., bibliographic data, abstract and/or full text information

Patent document exchanges are maintained with substantially all patent-issuing intellectual property offices. CD-ROM products containing patents images and information are provided to 112 intellectual property offices (see descriptions of the products above). Copies of US plant patents are provided in paper form to 22 offices.

All intellectual property offices receiving USPTO CD-ROM products as part of an exchange agreement have been changed over to DVD-ROM format.

The USPTO has been involved in a variety of discussions concerning the exchange of patent documentation and information. Principally, these efforts have taken place in the context of the Trilateral Partnership consisting of the European Patent Office (EPO), the Japan Patent Office (JPO) and the USPTO. The Trilateral Partners continue to work with WIPO on a number of patent-related matters, e.g., developing and updating standards related to storage of patent data on electronic media, etc.

### Medium used for exchange of priority documents

There are no new activities in this area.

### Medium allowed for filing applications

#### Electronic Filing System (EFS)

In the area of Electronic filing the Office continues to work on a series of projects under the heading of the Electronic Filing System (EFS). The first of these products was PrintEFS, which used the underlining concept of EFS to produce a paper printout and was released in April of 1999. The PrintEFS product was available on the PTO Web site and was downloadable to the individual users machine. PrintEFS presented a series of electronic forms, validation, and help to allow the user to input all of the needed bibliographic data. Once completed, the product printed out a Bibliographic data sheet in a format similar to the International Standard Application Format.

The first EFS release occurred in September 1999, with the release of EFS Bio, which enabled PTO customers to file Computer Readable Form (CRF) biosequence listings over the Internet as an alternative to mailing the listings on portable electronic media, in fulfillment of the requirements of U.S. Code 37 CFR 1.821(e). The second EFS release occurred in December 1999 with the initial release of EFS Pilot software to a limited number of volunteer participants. The initial EFS Pilot allowed a controlled number of applicants to electronically author and submit new U.S. utility patent applications, of limited complexity, for paper prosecution. EFS applicants use a PTO-customized word processing template to create a structured XML (eXtensible Markup Language) tagged patent application Specification document. Accompanying parts of the application, including drawings, are submitted as scanned image files. Prior to transmitting the patent application, EFS applicants must obtain a digital certificate from the USPTO. EFS applicants use a second PTO-customized application, the electronic Packaging and Validation Engine (ePAVE), to collect transmittal and fee information, attach the Specification and image files, and automatically validate (based on XML and USPTO business rules), bundle, compress, digitally sign, encrypt (using PTO Public Key Infrastructure to ensure confidentiality), and transmit the entire application package to USPTO. A second release of EFS Pilot software was deployed in August 2000. The second release of EFS Pilot software was made available to a wider group of users.

The USPTO deployed the Electronic Filing System to the public in October 2000, incorporating feedback and lessons learned from the pilot. This version of EFS included an XML authoring capability. This production version of EFS supports the electronic filing of patent application documents for Pre-Grant Publication. The USPTO is working with the EPO, JPO and WIPO to provide XML authoring solutions incorporating USPTO developed Document Type Definitions (DTDs).

*Electronic Filing System (EFS)* – The EFS system includes the electronic Packaging and Validation Engine (ePAVE) client application. The ePAVE client provides a number of forms containing transmittal and fee related information that are used by the applicant as part of preparing an application for submission. The information entered into each of the various forms is saved as XML documents. The Specification, including the abstract, claims, drawings, continuity

data, etc are authored as a structured XML document using an authoring template created by the USPTO for WordPerfect Version 9. A form in the ePAVE client is provided for the applicant to attach the XML instance created with the WordPerfect template. Once the applicant has completed the appropriate forms and attached the specification instance, the XML documents and any externally referenced files such as TIFF images of drawings and complex work units are bundled and compress into a single zipped archive. A Microsoft Word based XML authoring capability was added in 2000. The applicants' digital certificate, issued by the USPTO is used to digitally sign the zipped archive, and the package is encrypted and transmitted to the USPTO via the Internet. Once the package is received, the integrity of the package is validated and a receipt including a timestamp and the contents of the submission package is generated for the applicant.

### PatentIn

Since October 1990, the USPTO has made available to customers a software tool called PatentIn. This tool provides customers an efficient means to comply with USPTO rules requiring a Sequence Listing (in paper and electronic form) to accompany each biotechnology patent application that contains biological sequence information. This tool was initially designed and developed by USPTO, and is used by over 70 percent of customers when they submit such applications. Several modifications and improvements to make PatentIn compatible for international use have occurred since 1990 resulting in the final DOS version, PatentIn 1.3.

During the early 1990's, USPTO and EPO customers suggested that, given the projection for increased rate of submissions, the software would be far more beneficial if it were Windows based. In addition, both EPO and JPO have requested the rapid development and implementation of the Windows PatentIn product as part of Trilateral Project 14.2. to ensure that their respective biotechnology patent examination efforts are equally as efficient. In 1996, USPTO and EPO began a cooperative effort to develop a Windows-based version of PatentIn that would satisfy WIPO Standard ST.25. As a result of these efforts PatentIn 2.0 was released in 1998. An updated and improved version called PatentIn 2.1 was released in 1999.

Development of the next version, PatentIn 3.0, was completed in June 2000 and deployed on the USPTO website in July 2000. This began as a web-based version with the idea being to generate the sequence listing and immediately transmit it to the USPTO over the Internet. The development of EFS overtook the PatentIn revision effort so the focus was changed to improvements in version 2.1 instead. PatentIn 3.0 can handle up to 100,000 sequences and sequences with lengths of up to one million residues. It is written in Visual C++ which makes it easily portable to any Windows-based system.

PatentIn 3.1 has been in process since deployment of PatentIn 3.0 and it corrects two or three problems remaining with the older version as well as offers some improvements. PatentIn 3.1 can handle sequences of up to about 4 million residues, the import scheme has been improved and features for Xaas in supplemental sequences are calculated automatically. PatentIn 3.1 was deployed in June 2001.



Implementation of the Statement of Principles Concerning the Changeover to Electronic Data Carriers for the Exchange of Patent Documents (please make a status report on the extent to which your Office has changed over to electronic data carriers for the exchange of patent documents)

The USPTO began providing copies of its patent documents on the USAPat CD-ROM product (see description above) to all of its international exchange partners in 1994. In consideration of the ever-increasing costs to store and maintain patent documents as paper search files and maintain their availability on microfilm media, the USPTO continues to study ways to provide exchange recipients with US patent specifications on CD-ROM or other electronic media in lieu of paper and microfilm.

**VIII. Other relevant matters concerning education and training in, and promotion of, the use of patent information, including technical assistance to developing countries:**

Training courses for national and foreign participants, use of audiovisual means

The USPTO provides technical training relevant to intellectual property law and patent and trademark practice for all attorneys and patent examiners. Additionally, a variety of technical classes are available dealing with search techniques on the USPTO automated system and methods of using a variety of custom computer software to assist in the examination process.

The Office of Legislative and International Affairs coordinates a two week Visiting Scholars Program and a one-week Enforcement training program. Here the USPTO hosts patent professionals from offices worldwide and present them with training on patents, trademarks, copyrights, and related procedural and operational issues.

The USPTO also operates a televideo-conference facility. This has been used to broadcast live meetings and lectures with officials in foreign countries.

Assistance to developing countries (sending consultants and experts, receiving trainees from developing countries, etc.)

The USPTO offers various programs to provide technical assistance to developing countries and countries moving to a market economy. Programs focus on establishing adequate systems in these countries for the protection of intellectual property rights. Activity was increased in the area of intellectual property enforcement training. The programs provide advice and expertise to these countries with the desired goal being the reduction of losses resulting from piracy of U.S. intellectual property. There were two Visiting Scholars Programs in 2001 which provided participants from 32 countries with two weeks of classroom and hands-on study of various aspects of the administration of intellectual property law, patent and trademark examination and

copyright protection, and an opportunity to gain an understanding of the important role of intellectual property protection as a toll for economic development. Other highlights include two Intellectual Property Enforcement Training Programs, participation in an Intellectual Property Rights Conference in Nigeria, and participation in a Symposium on the Internet and IP Crime.

Promotional activities (seminars, exhibitions, visits, advertising, etc.)

The USPTO's nationwide network of 87 Patent and Trademark Depository Libraries (PTDLs) serves customers in major metropolitan areas and regional locations in all 50 states, the District of Columbia and Puerto Rico. As a headquarters only agency, the USPTO relies on the PTDLs to serve as its field office presence, providing the human interface to its information products and services. PTDLs have served as host sites for the USPTO's public workshops on the American Inventors Protection Act (AIPA) for patent attorneys and independent inventors.

Studies to identify trends in new technology, e.g., by the use of patent statistics, preparation of monographs, etc.

The USPTO maintains the Technology Assessment and Forecast (TAF) database, which allows selected patent bibliographic information to be accessed, retrieved, and analyzed in a variety of ways. Time-series information by country, company, and technology may be obtained and used to identify trends. Specific information, such as patent titles and independent inventor names and addresses, is also available. A variety of prepared TAF statistical reports containing calendar year data are available to the public.

Many TAF calendar year statistical reports displaying overall trends by country, state, type of patentee (e.g., corporate, individual, or government), and patentee organization are available free of charge while other prepared reports are available for a nominal charge. Some reports present profiles of patenting activity in selected new and active technologies such as for the Internet, Semiconductors, and Telecommunications; other reports profile regional US patenting by state and locality; still other reports display trends by specific patenting group (e.g., US universities, US women). Many profile reports are updated once or twice annually, and new reports are added as necessary. In addition, customized patent trend reports may be obtained for a fee, subject to available resources. Many of the TAF general statistical reports may be accessed at the USPTO's Internet Web site; some reports are available only at the Internet Web site.

Assistance furnished by offices to facilitate the changing over of receiving offices to electronic data carriers for the exchange of patent documents (see also item 4 of Chapter VI, above)

The USPTO closely cooperates with its exchange partners and provides detailed responses to requests for information regarding use of its USAPat CD-ROM product as a replacement for paper or microfilm patent documents. The USPTO has also offered to provide any exchange partner which decides to stop receiving a paper set of patent documents prior to the year 2000 with two subscriptions to USAPat CD-ROM along with complete back files to 1994. For offices

which decide to stop receiving US patents on microfilm, a single subscription to USAPat along with the backfile was offered.

**IX. Other relevant matters**

[End of document]